

Attorney Docket No. 01709/HG

**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

Applicant(s): Yasuhiro SAITO et al  
Serial No. :  
Filed : Concomitantly herewith  
For : METHOD OF MANUFACTURING  
GLASS SUBSTRATE FOR  
INFORMATION RECORDING  
MEDIA AND GLASS SUBSTRATE  
MANUFACTURED USING THE  
METHOD

**PRELIMINARY AMENDMENT FILED  
CONCOMITANT WITH APPLICATION**

Assistant Commissioner for Patents  
Washington, D.C. 20231

S I R :

Please amend the application as follows:

**IN THE CLAIMS:**

4. (Amended) A method of manufacturing a glass substrate for information recording media as claimed in claim 1, wherein the heat treatment is carried out in a liquid.


8. (Amended) A glass substrate for information recording media manufactured by a method as claimed in claim 1.

Please add the following claims 9-16:

9. (New) A method of manufacturing a glass substrate for information recording media as claimed in claim 2, wherein the heat treatment is carried out in a liquid.

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Lori Valdes

In the event that this Paper is late filed, and the necessary petition for extension of time is not filed concurrently herewith, please consider this as a Petition for the requisite extension of time, and to the extent not tendered by check attached hereto, authorization to charge the extension fee, or any other fee required in connection with this Paper to Account No. 06-1378.

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10. (New) A method of manufacturing a glass substrate for information recording media as claimed in claim 3, wherein the heat treatment is carried out in a liquid.

11. (New) A method of manufacturing a glass substrate for information recording media as claimed in claim 9, wherein the liquid is a molten salt, and the heat treatment includes chemical strengthening treatment wherein some ions of chemical components constituting the glass substrate are replaced with ions contained in the molten salt having a larger ionic radius than the some ions of the chemical components constituting the glass substrate.

12. (New) A method of manufacturing a glass substrate for information recording media as claimed in claim 10, wherein the liquid is a molten salt, and the heat treatment includes chemical strengthening treatment wherein some ions of chemical components constituting the glass substrate are replaced with ions contained in the molten salt having a larger ionic radius than the some ions of the chemical components constituting the glass substrate.

13. (New) A glass substrate for information recording media manufactured by a method as claimed in claim 2.

14. (New) A glass substrate for information recording media manufactured by a method as claimed in claim 3.

15. (New) A glass substrate for information recording media manufactured by a method as claimed in claim 6.

16. (New) A glass substrate for information recording media manufactured by a method as claimed in claim 7.

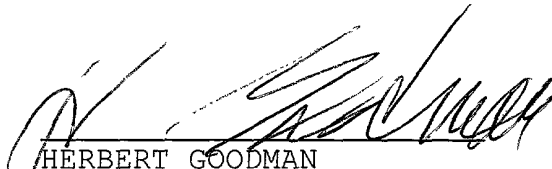
**REMARKS**

The present amendment removes all multiple dependent claims without changing the scope of coverage.

A copy of the original claims with the amendments marked thereon is attached hereto.

Entry of the present amendment is solicited.

Respectfully submitted,

  
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Enc.: Marked up copy of original claims

What is claimed is:

1. A method of manufacturing a glass substrate for information recording media, comprising the steps of:

- 5 precision polishing a glass substrate;  
subjecting the glass substrate to first washing treatment using an acidic aqueous solution and an alkaline aqueous solution;  
subjecting the glass substrate to heat treatment;  
10 and

subjecting the glass substrate to second washing treatment using an acidic aqueous solution and an alkaline aqueous solution.

2. A method of manufacturing a glass substrate for information recording media as claimed in claim 1,  
15 wherein a treatment temperature of the heat treatment is not less than  $(T-200)^{\circ}\text{C}$ , wherein T represents an annealing temperature corresponding to a strain-removing point of the glass substrate.

3. A method of manufacturing a glass substrate for information recording media as claimed in claim 1,  
20 wherein a treatment temperature of the heat treatment is not more than  $T^{\circ}\text{C}$ , wherein T represents an annealing temperature corresponding to a strain-removing point of the glass substrate.

*Amended*  
4. A method of manufacturing a glass substrate for information recording media as claimed in *claim 1* any one of claims 1 through 3, wherein the heat treatment is carried out in a liquid.

5. A method of manufacturing a glass substrate for information recording media as claimed in claim 4,  
30 wherein the liquid is a molten salt, and the heat treatment includes chemical strengthening treatment wherein some ions of chemical components constituting the  
35 glass substrate are replaced with ions contained in the

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molten salt having a larger ionic radius than the some ions of the chemical components constituting the glass substrate.

5 6. A method of manufacturing a glass substrate for information recording media as claimed in claim 1, wherein the acidic aqueous solution contains at least one acid selected from the group consisting of hydrofluoric acid, silicofluoric acid, sulfuric acid, hydrochloric acid, nitric acid, sulfamic acid and phosphoric acid.

10 7. A method of manufacturing a glass substrate for information recording media as claimed in claim 1, wherein the alkaline aqueous solution comprises an aqueous solution of a water-soluble alkaline material, and further contains at least one component selected from  
15 surfactants and chelating agents.

*Amended*  
8. <sup>claim 1</sup> A glass substrate for information recording media manufactured by a method as claimed <sup>claim 1</sup> in any one of claims 1 to 3 and claims 6 and 7.

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